AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1.   (Currently Amended) A method for capturing images for use in a digital camera comprising the steps of:

a) receiving a preview of a scene to be captured;

b) automatically determining whether the scene to be captured is a document based on the preview by evaluating pixels of said preview of said scene to be captured to determine whether said scene to be captured is a document or whether said scene to be captured is a natural scene;

c) when it is determined that the scene is a document, programming at least one camera control for document capture; and

d) capturing the scene with the programmed camera control

wherein if, based on said evaluating step, said scene to be captured is a natural scene then a camera control unit optimizes camera settings for capturing said natural scene and an image processing unit applies image processing algorithms tailored for enhancing natural scenes to said natural scene.

2.   (Original) The method of claim 1 further comprising:

e) performing image processing tailored for documents on the captured scene.

3.   (Original) The method of claim 1 wherein the preview is a lower resolution version of the scene to be captured.

4. (Original) The method of claim 1 wherein automatically determining whether the scene is a document includes

dividing the preview into a plurality of regions;

detecting the luminance edges in each region;

counting the number of luminance edges in each region;

determining the number of regions in which the number luminance edges is greater than a predetermined number of edges;

when the number of regions exceeds a predetermined number of regions, classifying the preview as a document;

otherwise, when the number of regions does not exceed the predetermined number of regions classifying the scene as a non-document.

5. (Original) The method of claim 1 wherein automatically determining whether the scene is a document includes

classifying every pixel into three classes of pixels; wherein the classes include a text pixel class, a picture pixel class, and a background pixel class'

counting the number of text pixels;

determining whether the number of text pixels is in a predetermined relationship with a predetermined percentage of the total pixels;

when the number of text pixels is in a predetermined relationship with a predetermined percentage of the total pixels, classifying the image as a document;

otherwise, when the number of text pixels is not in a predetermined relationship with a predetermined percentage of the total pixels, classifying the image as a non-document.

6. (Original) The method of claim 1 wherein the digital camera includes an automatic flash, a shutter speed control, an aperture control, and a capture plane and a document to be captured is disposed in a document plane; wherein programming the camera controls for document capture includes

instructing the user to position the digital camera in a first predetermined manner; wherein the capture plane is approximately parallel to the document plane;

disabling the automatic flash; and

setting the shutter speed to a predetermined shutter speed.

7.   (Original) The method of claim 6 wherein setting the shutter speed to a predetermined shutter speed includes

setting the shutter speed to be equal to or faster than 1/30 second.

8.   (Currently Amended) The method of claim 6 wherein the digital camera further includes an ISO setting, the method further wherein the comprising the steps of:

determining an aperture (f-number) based on the shutter speed setting;

determining if the determined aperture setting is available;

when the determined aperture setting is available, setting the aperture to the determined aperture setting;

otherwise, when the determined aperture setting is not available, setting the aperture to the maximum available aperture and modifying an ISO setting.

9.   (Original) The method of claim 1 wherein the digital camera includes a capture plane and a document to be captured is disposed in a document plane; wherein tailoring the camera controls for document capture includes

instructing the user to position the digital camera in a second predetermined manner that reduces reflections from the document; wherein the capture plane is at a angle with respect to the document plane; wherein the angle is in a predetermined range of angle values;

enabling the automatic flash; and

setting a small aperture with an f-number that is greater than or equal to a predetermined value.

10.   (Original) The method of claim 9 wherein the predetermined range of angle values includes the range from about 22 degrees to about 45 degrees; and

wherein setting the f-number to a value that is greater than or equal to a predetermined minimum f-number includes

setting the f-number to a value that is equal to or greater than f/5.6.

11. (Original) The method of claim 9 further comprising:

determining a shutter speed based on the aperture setting; and

setting a shutter speed setting to the determined shutter speed setting.

12. (Original) The method of claim 1 wherein performing image processing tailored for documents on the captured scene includes

identifying edge pixels;

sharpening the edge pixels;

darkening the edge pixels; and

performing luminance correction on the image.

13. (Original) The method of claim 1 wherein the document is one of a computer printout, information written on a whiteboard, a slide projected from a projector, a presentation displayed by an overhead projector.

14. (Original) The method of claim 1 wherein the document includes one of text, graphics, images, and a combination thereof.

15. (Currently Amended) An image capture system comprising:

a) a preview unit for providing a preview of a scene to be captured;

b) an automatic document detection unit coupled to the preview unit for receiving the preview of the scene and responsive thereto for automatically determining whether the scene is a document evaluating pixels of said preview of said scene to be captured to determine whether said scene to be captured is a document or whether said scene to be captured is a natural scene;

c) a document camera control unit for setting at least one capture parameter tailored for capturing documents when it is determined that the scene is a document;

d) a image capture unit for capturing the scene with the set capture parameter

wherein if said scene to be captured is a natural scene then a natural scene camera control unit optimizes camera settings for capturing said natural scene and an image processing unit applies image processing algorithms tailored for enhancing natural scenes to said natural scene.

16.   (Original) The system of claim 15 further comprising:

e) a document image processing unit for performing image processing on the captured scene; wherein the image processing is tailored for documents.

17.   (Original) The system of claim 15 wherein the automatic document detection unit divides the preview into a plurality of regions, detects the luminance edges in each region, counts the number of luminance edges in each region, determines the number of regions in which the number luminance edges is greater than a predetermined number of edges, when the number of regions is greater than a predetermined number of regions, classifying the preview as a document, otherwise, classifying the preview as a non-document.

18.   (Original) The system of claim 15 wherein the automatic document detection unit classifies every pixel into three classes of pixels; wherein the classes include a text pixel class, a picture pixel class, and a background pixel class; counts the number of text pixels; determines whether the number of text pixels is in a predetermined relationship with a predetermined percentage of the total pixels; when the number of text pixels is in a predetermined relationship with a predetermined percentage of the total pixels, classifying the image as a document; and when the number of text pixels is not in a predetermined relationship with a predetermined percentage of the total pixels, classifying the image as a non-document.

19.   (Original) The system of claim 15 wherein the document image

processing unit identifies edge pixels, sharpens the edge pixels, darkens the edge pixels, and performs luminance correction on the image.

20.   (Original) The system of claim 15 wherein the document is one of a computer printout, information written on a whiteboard, a slide projected from a projector, and a presentation displayed by an overhead projector; and

wherein the document includes one of text, graphics, images, and a combination thereof.

Claims 21-24 (Canceled)

25. (Previously Presented) A method for capturing images in a digital camera comprising the steps of:

a) receiving a digital preview of a scene to be captured;

b) image processing the scene to be captured by evaluating pixels associated with said scene to determine whether the scene is a document or a natural scene based on the preview;

c) programming at least one camera control for document capture if it is determined that the scene is a document;

d) programming at least one camera control for natural scene capture if it is determined that the scene is a natural scene; and

e) capturing the scene with the programmed camera control.